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# Briefing to ATP Industry Day #1 on

## Block 50/52 Targeting Pod Requirements

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# Overview



- **F-16CJ Modifications**
  - CSAF Goals
  - HTS Modernization
  - Multi-role adds--AAI/TGP
  - Dual Carriage HTS/TGP
  - TGP Considerations
  - Revised Mod Plans
- **TGP Requirements**
- **Funding strategy (Internal AF Only)**

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# CSAF Interest in F-16CJ Capability



## Gen Ryan Direction

- *“...I want to put both TGP and HTS pods on the Block 50... Now!”*

MIKE RYAN, Gen, CSAF

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# What are the Chief's Goals?

***Gen Ryan: "I don't need another single-role fighter... I need the Block 50s to cover multiple mission areas. (Mar 99)"***

**Give F-16CJs a true multi-role capability to support EAF operations**

- One squadron - three missions

**Adequately equip existing SEAD squadrons**

- Operational Contingencies and training

**Destructive SEAD (DEAD) potential**

- HTS R7 / TGP combination provides potential to find, pinpoint, and destroy mobile SAMs

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## “The Chief’s Words”

TEXT

:UNCLAS  
PERSONAL FOR  
GEN JUMPER.  
INFO GEN  
EBERHART, GEN  
HAWLEY, GEN  
GAMBLE,  
GEN NEWTON,  
GEN BABBITT

SUBJ: HTS PODS  
ACQUISITION

1. IN RESPONSE TO YOUR HTS CONCERNS, THERE ARE THREE KEY BLOCK 50 INITIATIVES BEING ADDRESSED TO INCREASE MULTI-ROLE CAPABILITY. THEY ARE **HTS R-7, AIR-TO-AIR INTERROGATOR, AND HTS PODS**. WE ARE PUSHING THESE ISSUES HARD IN THE BUDGET PROCESS AND ARE LOOKING TO ACCELERATE SOME VIA THE FY99 EMERGENCY SUPPLEMENTAL AND THE FY00 UPL. WE WILL CONTINUE TO EMPHASIZE THESE PROGRAMS AND SUPPORT THE CAF'S REQUIREMENT TO ACQUIRE ADDITIONAL HTS PODS TO PROVIDE A "1 FOR 1 + 10%" POD TO AIRCRAFT RATIO DURING THE FY01 APOM/BES. THESE ARE CRITICAL CAPABILITIES THAT ARE VITAL TO OUR EAF OPERATIONS **AND WILL ENABLE US TO DEPLOY ONE BLOCK 50 SQUADRON TO COVER MULTIPLE MISSION AREAS.**

2. ADDITIONALLY, **I HAVE ASKED XO TO DEVELOP AN OPTION TO GIVE THE BLOCK 50 TARGETING POD CAPABILITIES IN FY03. THIS WILL PROVIDE US MAXIMUM FLEXIBILITY IN MEETING COMBAT TASKINGS AND ALLOW THE BLOCK 50 TO ACCOMPLISH DESTRUCTIVE SEAD USING PRECISION WEAPONS.**

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# HTS R7 Capability



- Precision Geolocation
  - Multi-ship cooperative ranging
  - Smaller target location errors permit employment of hard kill ordnance
  - Minimizes impact of enemy countermeasures
- Precision Identification
  - Potential to update actual EOB
- Improved Training Opportunities
  - Virtual battlefield maximizes training

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# HTS Pod Force Structure



	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	
<b>Req (CC/PAA)</b>		<b>189</b>	<b>189</b>	<b>189</b>	<b>199</b>	<b>209</b>	<b>219</b>	<b>219</b>
<b>Spares 10%</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	
<b>Test</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	
<b><u>Total</u></b>	<b><u>218</u></b>	<b><u>218</u></b>	<b><u>218</u></b>	<b><u>229</u></b>	<b><u>230*</u></b>	<b><u>230</u></b>	<b><u>230</u></b>	
<b>Avail</b>	<b>146</b>	<b>163</b>	<b>173</b>	<b>173</b>	<b>203?</b>	<b>230?</b>	<b>230?</b>	
<b>Shortfall</b>	<b>68</b>	<b>55</b>	<b>45</b>	<b>56</b>	<b>27</b>	<b>0</b>	<b>0</b>	

**Funded**

**Unfunded...but on UPLs**  
**FY00** 30 Pods  
**FY01** 30 Pods

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# Multi-role Capability



Adding AAI and TGP to the HTS gives F-16CJ squadrons the capability to perform three missions

- Force Protection, Precision Strike, S/DEAD
- Maximizes warfighting **CINCPACFLT flexibility**
  - Allows commanders to task forces on hand to support changing scenarios
- Significantly reduces logistics requirements

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# Dual Carriage Capability

Provides another sensor for multi-ship ranging

- Effectiveness of HTS R7 increased with more contributing sensors
- Contributors not limited to primary SEAD players
  - HTS R7 carriage and Link 16 only requirements

Minimizes logistics required to switch missions

- Enables maximum flexibility

Increased lethality without increasing force structure

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# TGP Options Presented Mar 99



Alt Carriage

Simultaneous Carriage

Alt Carriage

	Option 1	Option 1	Option 2	Option 3	Option 4	CCIP
Baseline	QRC-24 SW	QRC-24 SW/HW	50T5+ HW/SW	M2+ HW/SW	M3+ HW/SW	M3+ SW
Costs	\$7.5M	\$14.6M	\$29.2M	\$18.6M	\$13.3M	\$3M
Schedule 03	7 mo	17 mo	23 mo	Jan 02	Oct 03	Sep
Impact delay	None	DTS/Nuc	DTS/Nuc	DTS/Nuc	M3+ delay	M3+
	M2/40T6 delay	Degr HTS 6 mos	M3+ delay	6 mos	2 mos	

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# Block 50/52 Upgrade Plan

FY97 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

BLK 50  
Hardware

DEVELOPMENT

Prod

COLOR MFD, MMC

DEVELOPMENT

Prod

Link-16, JHMCS

DEV

Prod

AAI

Weapons/OFP

50T5  
JDAM  
JSOW  
WCMD

M2+  
BRU-57

M3+  
JASSM  
AIM-9X  
TGP

Note: Because CCIP will allow common OFP between 40/50, Block 50 get TGP capability in M3+

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# CONSIDERATIONS FOR TGP TYPE FOR BLOCK 50/52



Which TGP? LANTIRN/SNIPER, LITENING II, Terminator, other?

- Need TGP sensor to target JDAM/JSOW/LGBs
- Need for 3rd Gen FLIR & 40K laser are “must haves”
- Pod interchangeability is “must have”
- A-G Auto Tgt Recognition / CID is “nice to have”

How many pods?

- 8 per squadron + 10% spares = 99
- • CSAF optioned for 100 total buy

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# CSAF Decisions

- 30 Apr: CSAF presented with refined options on implementing HTS/TGP capability and associated impact on F-16 program
- CSAF decided to delay implementation of Dual carriage in order to avoid slipping CCIP capability including Link-16, AAI, JHMCS, CMFDS, and MMC
- Optioned for implementation of alternating carriage in FY02/03 in M3+ and dual carriage in FY 05 in M4+
- Optioned for 100 TGPs for the Block 50/52 fleet
- Decided to fund M4 acceleration from FY08 to FY05

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# Block 50/52 Modified Upgrade Plan



AIR COMBAT COMMAND

FY97 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

BLK 50  
Hardware

DEVELOPMENT

Prod

COLOR MFD, MMC

DEVELOPMENT

Prod

Link-16, JHMCS

DEV

Prod

AAI

TGP Alternate

HTS/TG  
P

Weapons/OFP

50T5  
JDAM  
JSOW  
WCMD

M2+  
BRU-57

M3+  
JASSM  
AIM-9X

M3.1+  
TGP  
AAI

M4+  
R-7  
HTS/TGP

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# What's Next?



- Budget resolution options for TGP
  - FY01 ABES bill
- Budget resolution for HTS pods
  - FY00/01 Supplemental
- ORD amendments
  - F-16 Block 50 ORD being revised for TGP
  - ACC writing ATP ORD

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# TGP Requirements



- TGP needs ability to derive target coordinates accurate enough for J Series weapons at “X” range
- Drives requirement for accurate LASER ranging and software to reduce Lat/Long errors for GPS weapons
- Need ability to “verify” pre-planned coordinates are on correct target...TARGET ID at range
- Need the best industry has to offer...but as a non-developmental item...time is a driver
  - Plan is for FY01 procurement start

***Bottomline: The Block 50 TGP will be used as a targeting sensor for J-series weapons as well as for targeting LGBs***

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# Questions?



*Major Scott "Spade" Williams  
Pentagon, F-16 PEM*

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